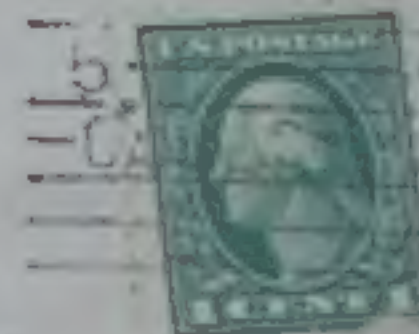


McIntosh Battery & Optical Co.

217-223 N. DESPLAINES ST.

CHICAGO.



DR. E. H. KNOWLTON,

MANTUA,

OHIO.

Introductory

IN offering to the profession our new Interrupterless X-Ray Transformer, we bespeak the same cordial reception which has been accorded to the various specialties of our manufacture which have been introduced during the past thirty-five years.

The keynote of the principle of construction which we have followed in X-Ray apparatus is EFFICIENCY. Our portable coils have set the pace in this regard. With our No. 6 Portable Coil it is possible to make a hip picture while drawing but one ampere of current. With other portable coils from five to ten amperes are consumed for this grade of work.

In the design of our Interrupterless apparatus, we have followed the same lines of progress. The construction of all of our apparatus is far simpler than that of other makes. A glance at the switchboard of many of the transformers is enough to awe the beholder and confuse the operator. We have aimed to do away with complication and make the apparatus extremely simple to operate.

The Hogan Silent X-Ray Transformer

(Patents Pending)

A New Principle All other Interrupterless X-Ray Transformers employ a noisy commutator driven by a synchronous motor to rectify the high tension alternating current before it enters the tube. This commutator is one of the most disagreeable features of such outfits, and 90 per cent of all repairs and renewals required are necessitated by this feature of the apparatus. In the Hogan Silent X-Ray Transformer this commutator has been entirely eliminated. By a special method of winding the transformer and connecting the tube, one of the waves of each cycle is transposed; in other words, we rectify the current wholly by electrical means without resorting to mechanical devices. In producing this result (which is absolutely new from the X-Ray standpoint, and on which basic patents are now pending) we have made use of a principle long used in electrical engineering practice. Electrical engineers of high standing, who have investigated our methods, endorse them as entirely practical.

No Commutators, Liquid or Mechanical Rectifiers, Valves or Interrupters Used

Absolutely no moving parts are contained in the Alternating Current Outfit aside from the adjustable spark gap rods. With the Direct Current Outfit a quiet-running rotary converter is required to change the direct current to an alternating current to excite the transformer, but otherwise no mechanical equipment is needed. There is an entire absence of the hissing arc which is formed at the commutator of the other machines.

No Valve Tubes Used

Some who have witnessed the perfect working of this transformer in utter amazement have declared that we use valve tubes to eliminate the inverse. No vacuum tubes whatever are used aside from the X-Ray tubes used routinely.

No Special Tube Needed

At first it was thought that a specially constructed tube would be necessary for the purpose, but after repeated experiments it was found that the regular tungsten target transformer tube could be employed.

Beautiful Hemisphere

The most remarkable feature of operation is that the tube lights up with a most beautiful, sharply defined hemisphere of deep yellow fluorescence as clear and distinct as with a static machine. This is the ideal condition long sought for by expert radiographers.

Absolutely No Inverse

At last an apparatus has been produced which excites a tube to the maximum brilliancy without inverse rays.

Deep Penetration

The great penetration obtained is one of the most commendable features. Radiographs made with this apparatus have greater contrast and reveal the most delicate gradations of density in soft tissue.

Marvelous Speed

Exposures of the thorax or pelvis are made in a single flash without using a screen.

Flexibility

The regulation is so perfect that fluoroscopic or treatment work can be engaged in without heating tube; or the heaviest radiographic effects can be had at an instant's notice.

Closed Core Transformer

The transformer is known as the closed core type, in which the efficiency is 85%. Manufacturers who recommend the old open core type usually have an axe to grind by taking back their old induction coils for future use.

The Hogan Silent X-Ray Transformer

(Patents Pending)



Showing apparatus only, with protective door closed.

The Hogan Silent X-Ray Transformer

(Patents Pending)

Closed Core vs. Open Core The sophistries advanced against closed core transformers by their opponents are as fallacious as their motives are obvious. When you buy a 5 K.W. closed core transformer which consumes 5 K.W. and renders 85% efficiency in milliamperes to an X-Ray tube, you are getting the equivalent of a 10 K.W. open core transformer in which only 46% of the energy is actually delivered to the tube.

Closed Core Economy vs. Open Core Extravagance A closed core transformer properly constructed and conservatively rated will stand a 100% overload for short intervals with absolute safety. The low ratings indicate maximum load for constant service. Our 5 K.W., A.C. machine will draw 10 K.W. if desired, but we have yet to learn of any X-Ray work which cannot be done with 5 K.W. or less. The open core transformers are usually listed at their overload rating, while closed core machines are rated as for constant service.

Improved Method a Great Economy The new method which we have introduced is as great an improvement over the ordinary closed core transformer as is the difference between the closed and the open cores. There is no motor to operate on the alternating current and no noisy commutator.

No Royalty to Pay Best of all, you have no royalty to pay to the owner of the commutator patent. All of the other interrupterless machines, excepting one, are made under a certain patent and the manufacturers pay a royalty which amounts to between \$50.00 and \$100.00 on each machine. You pay this royalty in the long run if you buy the other type of machine.

Absolute Silence When our machine is operated with the alternating current it is absolutely silent except for the slight sound produced by the passage of the current through the tube. There is no noisy hum of motor, no hissing spark as with the commutator—absolutely nothing to distract your attention from your work or to alarm the patient.

Tube Expense Slight One of the fetiches, which have been invoked by various manufacturers against each other, is that of tube expense. We look forward to a similar invocation on the part of competitors. We have gone thoroughly into the matter of tube expense, made exhaustive tests, having made two hundred exposures with one tube and that tube is still in first-class working order and is a good picture tube at the present writing.

Heating of Tube Minimized The heating of the tube is minimized and as a prominent tube maker remarked: "This invention will be bad for the tube business."

Exposure Reduced Many of the theories advanced by manufacturers have no basis for their existence but theory. One of these beautiful theories is that by utilizing the low voltage of the cycle a much greater tendency toward burns is noted in the ray. This theory we have exploded absolutely by exposing the pastilles of Sabourad at the same time at which radiographs were being made, the pastilles showing not the slightest change in tint, thus indicating that there is absolutely no more danger from burns by utilizing the entire wave than by using only the peak of the wave, as others do.

Protection A novel feature has been introduced in our cabinet by lining the door with sheet lead so that when in use, the door, being swung outwards, serves as a shield to the operator. This gives you a protective screen without additional expense and, best of all, without requiring extra floor space. A lead glass window in the door allows operator to see the tube and read the meter.

The Hogan Silent X-Ray Transformer

(Patents Pending)

Fluoroscopic Attachment A lead glass window 16x24 inches in the lead-lined door affords facility for fluoroscopic work. We can furnish a fluoroscopic screen fitted to the **outside of door** so that the patient can stand against the door and the operator on the other side can look through the lead glass at the fluoroscopic image of the part under study. The screen can be moved up or down by means of a cord under control of operator. This additional fixture at small expense gives the same advantages as the large, costly Roentgenoscopes, not to speak of the saving in floor space.

Lead-Lined Plate Compartment How many trips have you made to and from your plate chest during a series of radiographs to avoid exposure of plates? When desired, we add a compartment to the cabinet just below the switchboard where one may place several loaded plates or cassettes in readiness for the exposures contemplated. It is heavily lined with sheet lead and is absolutely safe. It measures 5¼ inches wide, 19½ inches long, and 15 inches deep, affording room for one dozen 14x17, one dozen 11x14, one dozen 8x10, and one dozen 5x7-inch plates.

Artistic Cabinet The cabinet-work is of selected quarter-sawed oak, dark golden finish, hand rubbed, measuring 44 inches wide, 25¼ inches deep, and 70 inches high, and with discharging rods removed will pass through an ordinary door. The tall design used affords a door of sufficient size for a screen and at the same time takes up little floor space.

Compactness When the door is closed the switchboard is completely enclosed, hence all possibility of any one accidentally tampering with the apparatus is prevented.

PRICES.

Hogan Silent X-Ray Transformer, 5 K.W., 110 or 220-volt alternating current, 60 cycles, complete with switchboard, rheostat, ammeter and three cord reels	\$ 750.00
Hogan Silent X-Ray Transformer, 5 K.W., 110 or 220-volt direct current, with same equipment as above, with addition of rotary converter to change direct to alternating, and starting rheostat	900.00
Milliammeter for X-Ray Tube.....	30.00
Fluoroscopic Screen, 11x14 inches, including attachments for mounting on door of cabinet	75.00
Lead-lined plate compartment	18.00

For Complete Outfit, Add

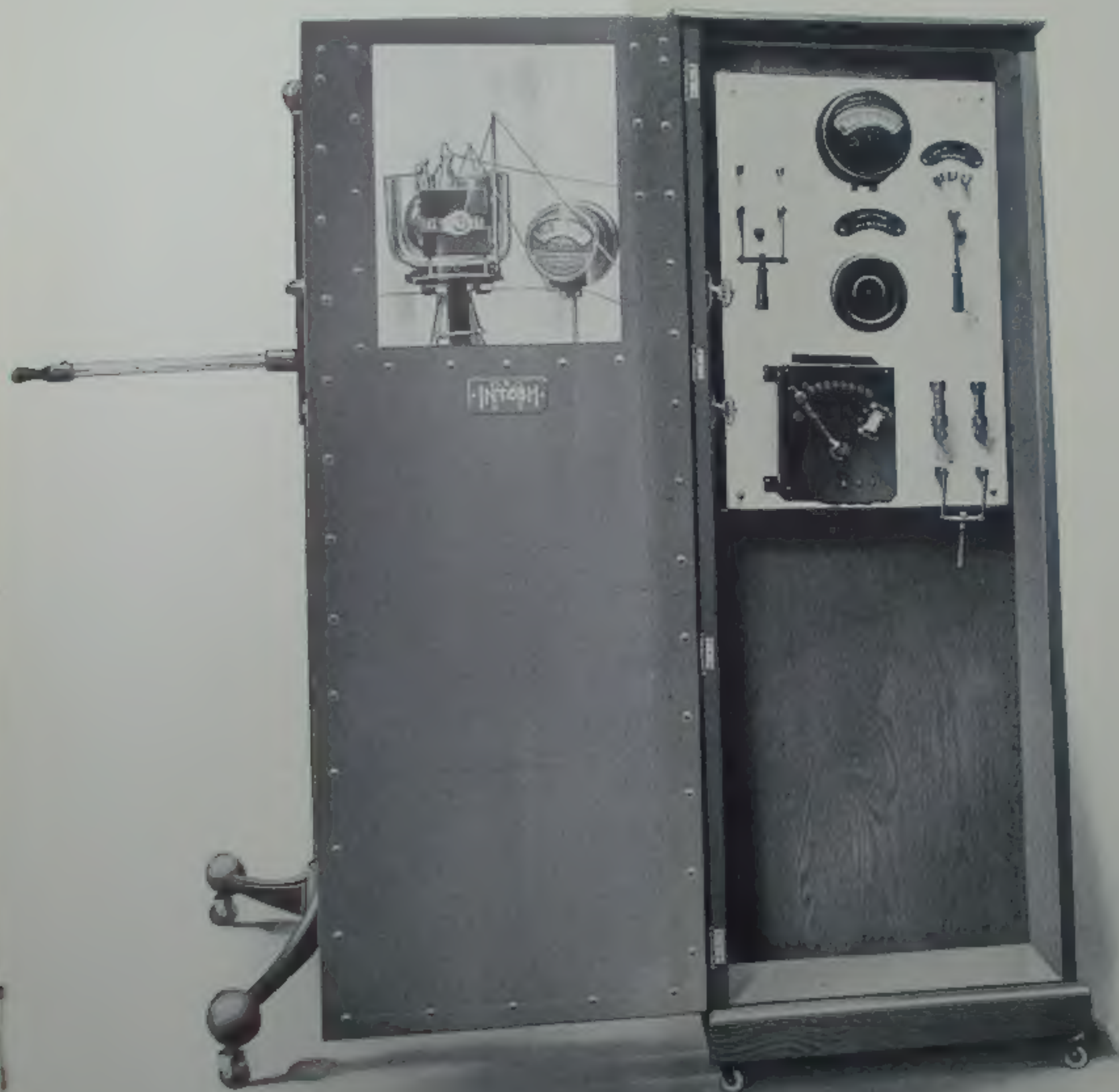
3 7-inch Tungsten Target Tubes, at \$35.00	105.00
1 McIntosh Stereoscopic Tube Stand with lead glass bowl and cone.....	85.00
1 Diagnostic Box	25.00
1 14x17-inch Intensifying Screen and Cassette.....	60.00
1 Tube Rack for three tubes.....	2.50

Price of complete outfit for direct current.....\$1,300.50

Price of complete outfit for 60-cycle alternating current.....1,150.50

The Hogan Silent X-Ray Transformer

(Patents Pending)



SHOWING how door may be used as protective screen. Window is of lead glass and permits fluoroscopic screen to be suspended on the side facing tube, while operator, standing behind the protective screen, views the fluoroscopic image through the window in perfect safety.

Switchboard shown is for the direct current outfit, being furnished with starting circuit for rotary converter.

750.00

900.00

30.00

75.00

18.00

165.00

35.00

25.00

50.00

2.50

50.00.00

1.500.00

McIntosh Stereoscopic X-Ray Tube Stand



Price\$85.00

THE bowl and cone are of heavy lead glass, confining the rays to the field of operation. All adjustments are firmly and easily made. The tube carriage is suspended by a counterweight in the hollow standard. Stereoscopic adjustment is effected by a set of stops which may be adjusted for $2\frac{1}{2}$ -inch slide or to suit operator.

The tube can be adjusted at any desired angle for radiographic fluoroscopic or treatment work, having a movement of 27 inches vertically and 14 inches horizontally, with lateral adjustment adaptable to any requirements.

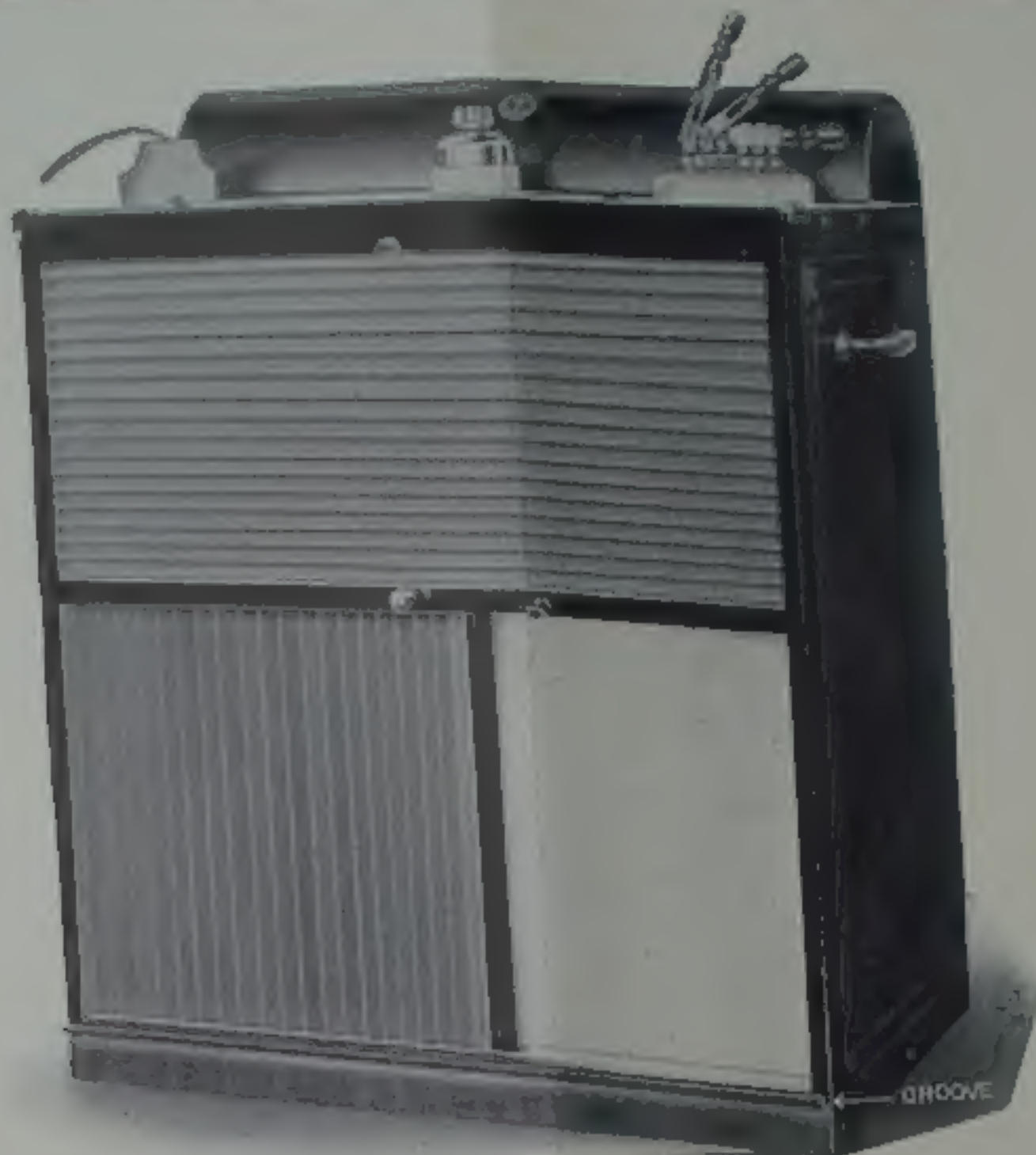
The stand is 67 inches high, 47 inches at greatest width, and weighs 115 pounds.

The bowl will hold any tube up to and including 8 inches in diameter.

THE
S

Price, 5
Price, 1
Price, M

Diagnostic Box



Price\$25.00

THIS is substantially made of sheet metal. The volume of light is under perfect control and may be graduated to suit thin or heavy plates. Any plate from 5x7 to 14x17 inches may be accommodated by adjusting the sliding curtains.

PARAGON X-RAY PLATES

Size in Inches	Per Dozen	No. of Plates in Package	Envelopes Extra Per Doz. Sets
5x7	\$1.40	12	\$0.30
6½x8½	2.10	12	.45
8x10	3.00	12	.60
10x12	5.30	6	.95
11x14	7.25	6	1.25
14x17	11.25	6	2.25

CRAMER X-RAY PLATES

Size in Inches	Per Dozen with 12 Envelopes	No. of Plates in Package
5x7	\$1.40	12
6½x8½	2.10	12
8x10	3.00	12
10x12	5.25	6
11x14	7.25	6
14x17	11.25	6

Price, 5x7-inch Imported Fluoroscope with lead glass screen.....\$17.00
 Price, Dark Room Lamp3.50
 Price, M. Q. Developer for X-Ray Plates, large size tube......25

Intensifying Screen and Cassette

	Size in inches	Price
No. 221.	5 x 7.	\$12.00
No. 222.	6½ x 8½.	18.00
No. 223.	8 x 10.	20.00
No. 224.	10 x 12.	32.00
No. 225.	11 x 14.	45.00
No. 226.	14 x 17.	60.00



Platinum-Barium-Cyanide Fluoroscopic Screens



No. 241.	Size in inches,	8x10.	Price.....	\$27.00
No. 242.	" "	11x14.	"	50.00
No. 243.	" "	14x17.	"	75.00

Price, additional, for fluoroscopic attachment to suspend above screens from protective door of cabinet \$25.00

(All screen prices subject to change without notice.)

THE screen is mounted in a good, strong, oak frame, and is covered by a thick, heavy piece of lead glass, assuring protection to the operator. A large handle is fastened to each end of the frame. Behind them are heavy pieces of metal, which prevent the rays reaching the hands.

Astral Screens for Fluoroscopy

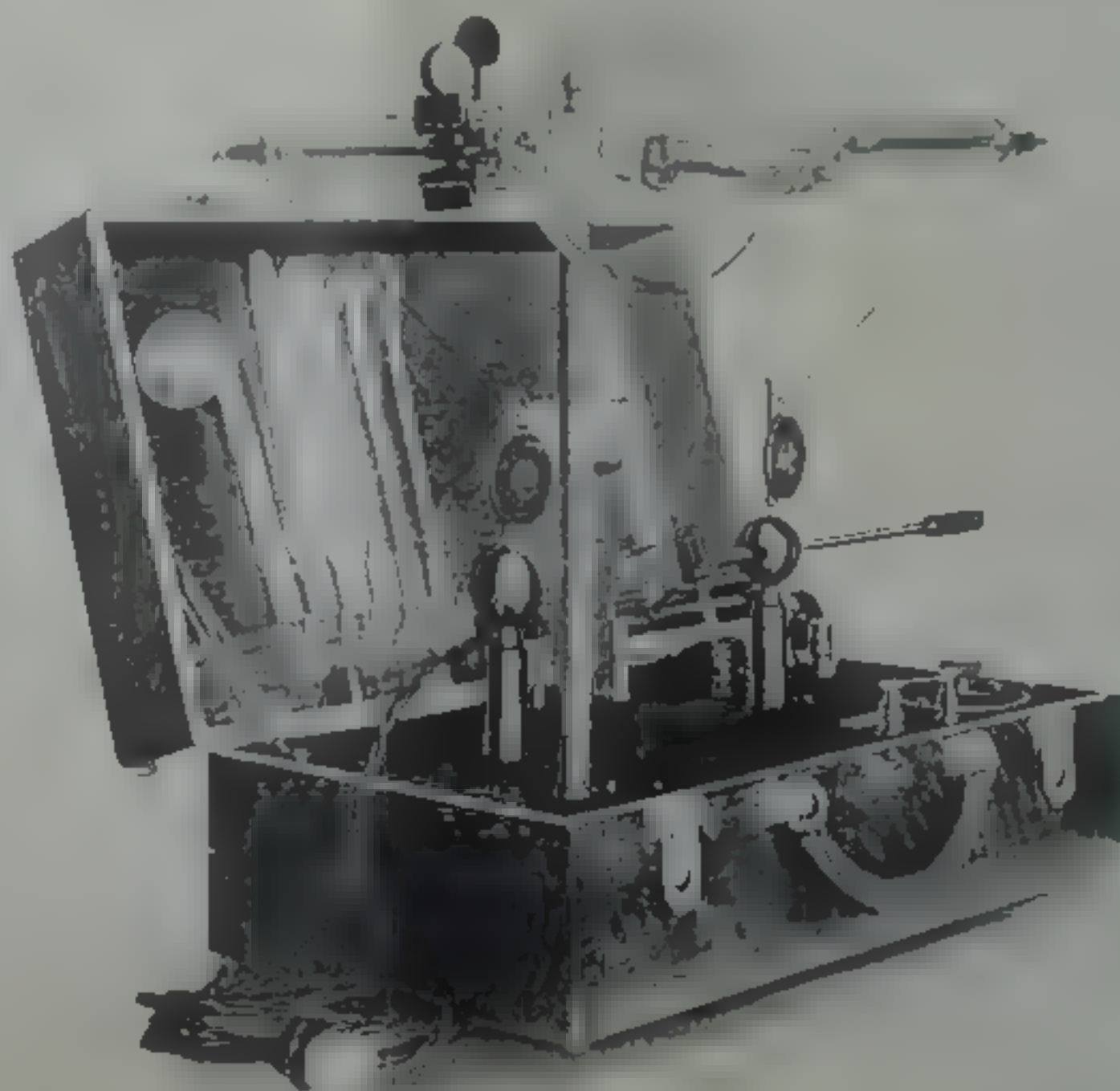
THIS new screen is of a substance which, when exposed to the X-Radiance, fluoresces similarly to those made of barium-platinum-cyanide, but a brighter and whiter light is obtained with X-Ray tubes working under the same conditions. The intensity of the fluorescence of the Astral screen is considerably greater than that of the platinum screen. Greater clearness of image is, therefore, obtained with the same amount of current passing through the X-Ray tube.

It is a well-known fact that barium-platinum-cyanide screens have the disadvantage of becoming brown in color and losing a certain amount of their fluorescent properties due to the influence of the X-Rays. The Astral screen is free from this drawback. Its chemical composition is not acted upon by X-Rays; in fact, not by any kind of light.

Prices, Including Frame with Lead Glass Cover

7 x 9 inches	\$32.50
9½x12 inches	45.00
12 x16 inches	75.00

McIntosh No. 2 X-Ray and Treatment Coil



Price, for 110 volts, without X-Ray Tube or Tube Clamp, but including set of six vacuum electrodes, handle, cord, attachment plug with cord and pair of cord reels, mounted in lid\$75.00
 Price, 6-inch High Frequency X-Ray Tube, latest type..... 20.00
 Price, 5x7-inch Imported B. P. C. Fluoroscope with lead glass protection..... 17.00
 Price, X-Ray Tube Clamp..... 3.00
 Price, X-Ray Tube Clamp..... 3.50
 Caution cords, handle and one cautery electrode.....

THIS Coil delivers a 3½-inch spark, sufficient to excite an X-Ray tube for examining or radiographing extremities, but not for deep-seated parts, being also suitable for X-Ray therapy in skin lesions.

It is especially valuable for high frequency treatments with the vacuum electrodes, the regulation being under perfect control by adjustment of the vibrator screw, and will excite any vacuum electrode perfectly from a delicate glow to full intensity.

It also affords good cautery results in nose and throat work.

The No. 2 Coil is finely finished and put up in a quarter-sawn oak case 11 inches wide, 18 inches long and 7½ inches high and can be operated with either alternating or direct current by screwing the plug in any lamp socket.

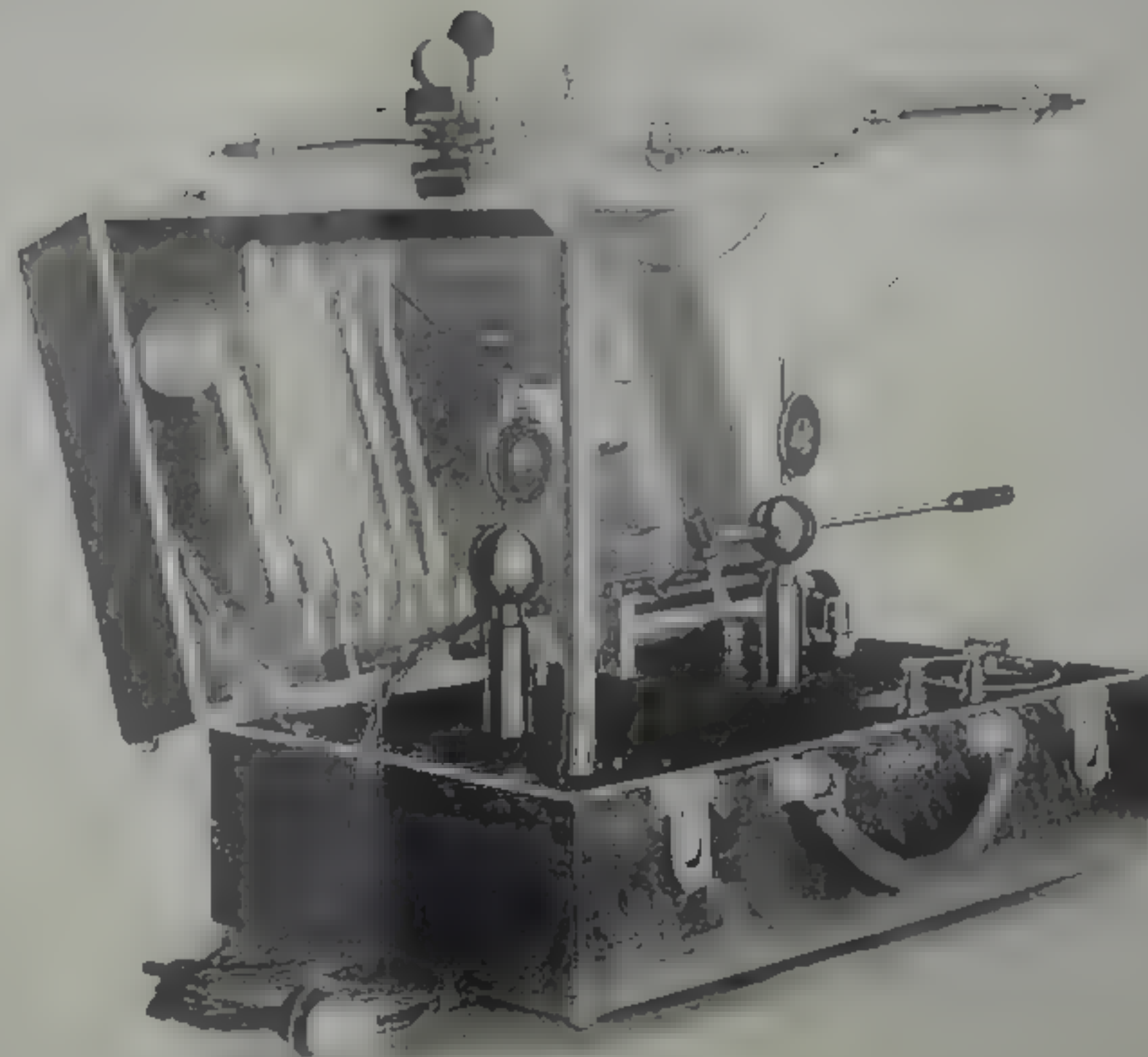
\$27.00
50.00
75.00

\$25.00

a thick,
handle
metal,

7 x 9 inches 75.00
 9 1/2 x 12 inches
 12 x 16 inches

McIntosh No. 2 X-Ray and Treatment Coil



Price, for 110 volts, without X-Ray Tube or Tube Clamp, but including set of six vacuum electrodes, handle, cord, attachment plug with cord and pair of cord reels, mounted in lid \$75.00

Price, 6-inch High Frequency X-Ray Tube, latest type..... 20.00

Price, 5x7-inch Imported B. P. C. Fluoroscope with lead glass protection..... 17.00

Price, X-Ray Tube Clamp..... 3.00

Cautery cords, handle and one cautery electrode..... 3.50

THIS Coil delivers a 3 1/2-inch spark, sufficient to excite an X-Ray tube for examining or radiographing extremities, but not for deep-seated parts, being also suitable for X-Ray therapy in skin lesions.

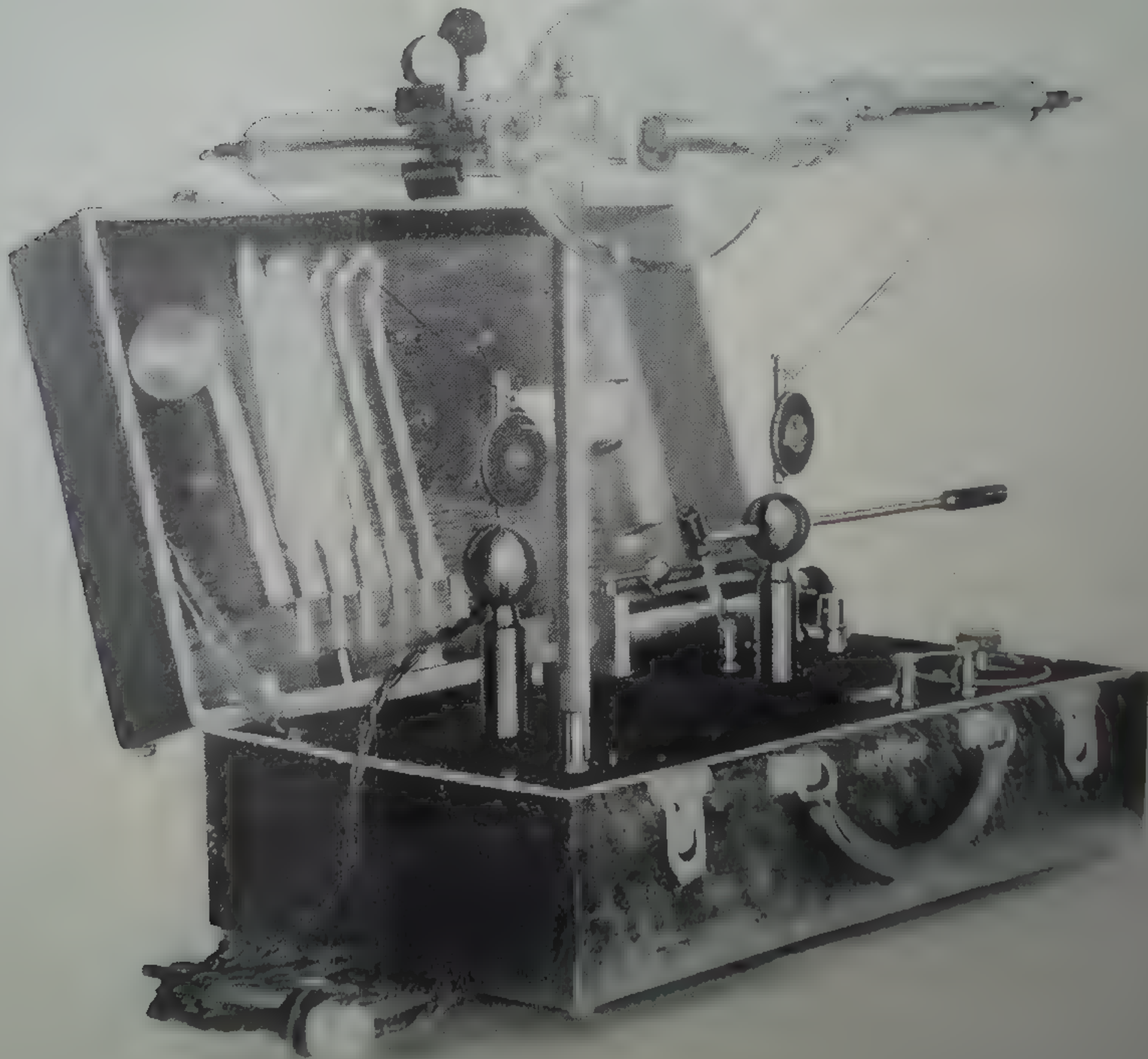
It is especially valuable for high frequency treatments with the vacuum electrodes, the regulation being under perfect control by adjustment of the vibrator screw, and will excite any vacuum electrode perfectly from a delicate glow to full intensity.

It also affords good cautery results in nose and throat work.

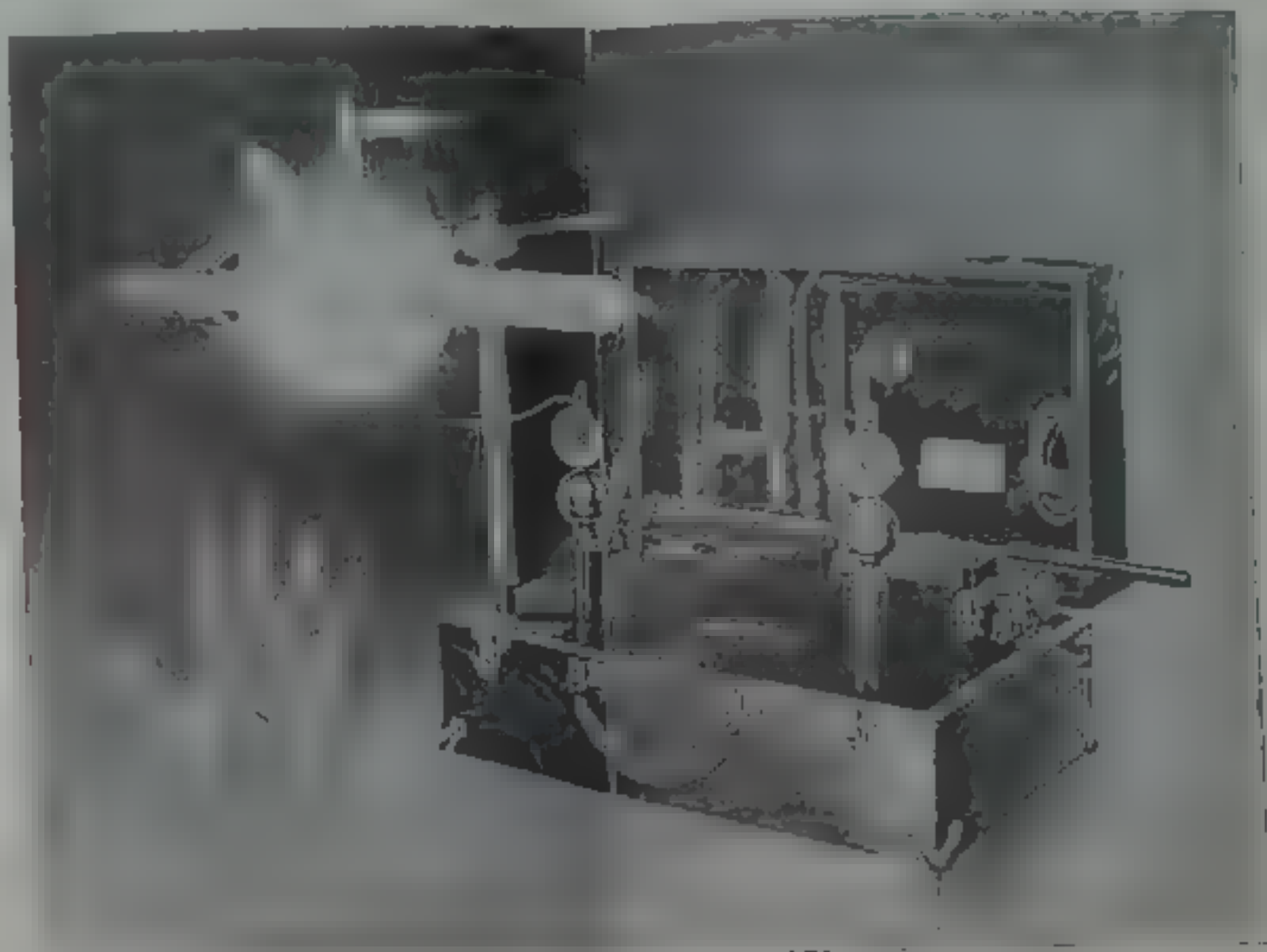
The No. 2 Coil is finely finished and put up in a quarter-sawed oak case 11 inches wide, 18 inches long and 7 3/8 inches high and can be operated with either alternating or direct current by screwing the plug in any lamp socket.

h

ent



McIntosh No. 6 Portable X-Ray Coil



Price, for 110 volts, without X-Ray Tube or Tube Clamp, but including set of six vacuum electrodes, handle, cord, cautery cords, handle and one cautery electrode, attachment plug with cord and pair of X-Ray cord reels, mounted in lid	\$125.00
Price, additional, for 220 volts direct or alternating current.....	10.00
Price, 6-inch High Frequency X-Ray Tube, latest type.....	20.00
Price, 5x7-inch Imported B. P. C. Fluoroscope with lead glass protection.....	17.00
Price, X-Ray Tube Clamp	3.00
Price, 8x10-inch Intensifying Screen, complete with Cassette.....	20.00
Price, Flexible Tube Shield for X-Ray treatment work.....	8.00

THIS is the most powerful portable coil of its size on the market. It weighs only 28 pounds, gives a heavy 6-inch spark, and will excite a 6-inch tube perfectly, affording a good fluoroscopic view of extremities, elbow, knee, etc.

It will make a splendid plate of the shoulder or chest in 45 seconds with an Intensifying Screen, or a good diagnostic picture of the hip in one minute. The Intensifying Screen is an absolute necessity with all body pictures; but for knee, elbow, etc., is not necessary if a good, fast plate, such as the Paragon, is employed.

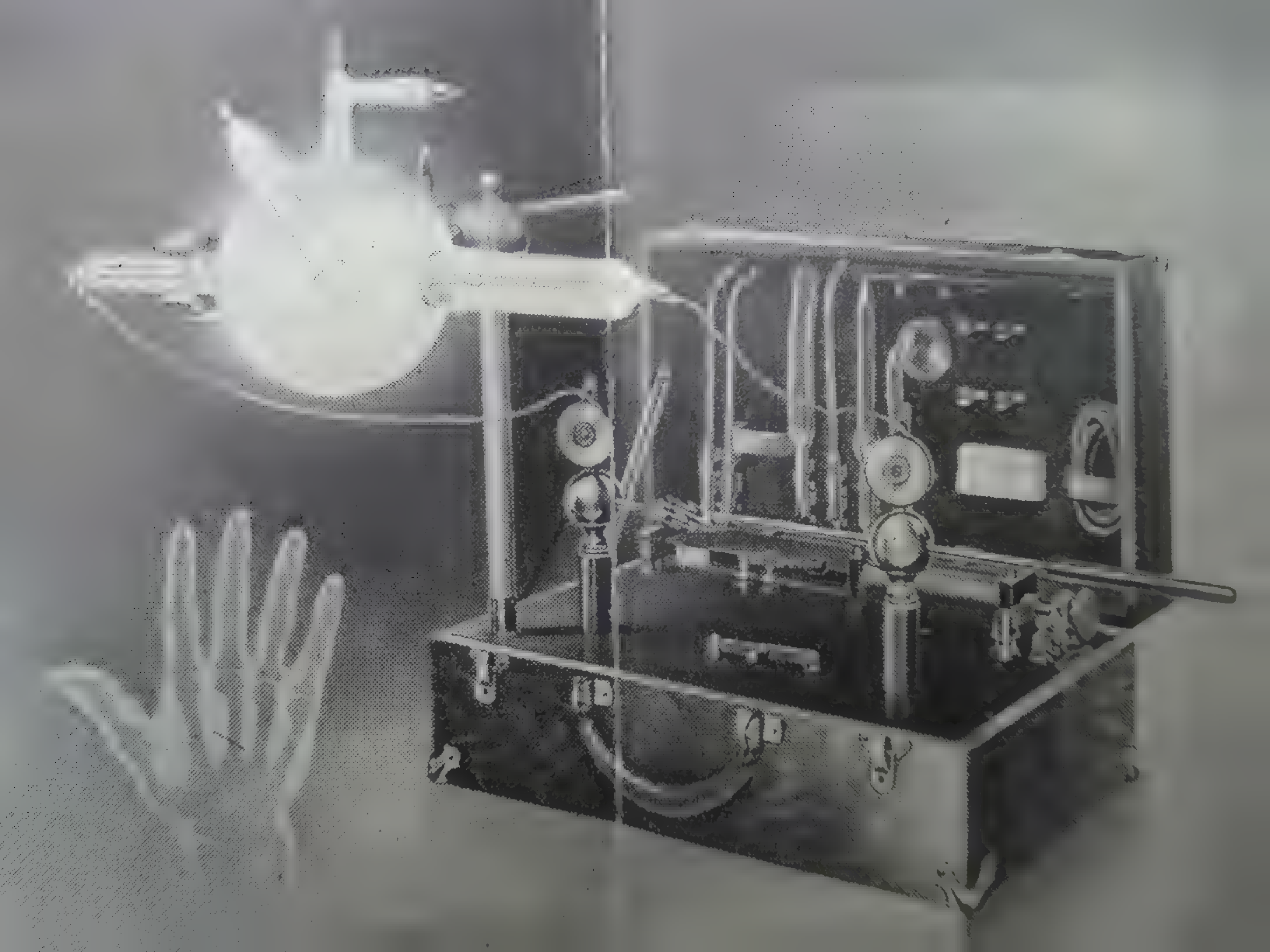
The No. 6 Coil can also be used for X-Ray treatments, giving good results in acme vulgaris, epithelioma, lupus, etc. For this work one should have the Tube Shield to protect operator.

The Coil is of the double Tesla type, is extremely simple of construction with the number of working parts reduced to the minimum and is constructed of the very highest quality of material and workmanship. For X-Ray work, both of the Tesla coils are employed. For high frequency treatments, one of the Tesla coils may be cut out by raising the grounding lever and leaning it against the discharging rod at the left.

Good cautery results can also be had in nose or throat work. Any ordinary knife can be heated perfectly.

The No. 6 Coil can be operated either with 110-volt direct or alternating current by simply screwing the plug in any lamp socket. No rotary converter is required with the direct current, as with other outfits.

The apparatus is finely finished, all metal parts being in lacquered brass mounted on a highly polished insulating base and contained in a polished quarter-sawn oak case measuring 18 inches long, 11 inches wide, and 7 $\frac{3}{4}$ inches high.



NO BOOK LIKE IT!

"A NECESSITY FOR THE ROENTGENOLOGIST"

NEW

Special
Edition
Full Silk Cloth,
All Outside
Stampings
in Gold

Invaluable to every
Physician, Surgeon and Hospital
believing in the importance
of the
X-Ray as a Diagnostic Agent

PRICE

\$10.⁰⁰

Specimen
Pages
Submitted
Upon
Request

GEORGE and LEONARD'S

THE ROENTGEN DIAGNOSIS OF SURGICAL LESIONS

of the

GASTRO-INTESTINAL TRACT

PUBLISHED BY THE COLONIAL MEDICAL PRESS, BOSTON, MASS.

The only COMPLETE and PRACTICAL work of its kind

¶ A great surgeon says: "As exemplified in this book, the X-Ray is truly **The Human Eye of Medicine.**"

¶ One of the leading Roentgenologists of the country writes: "It shows brilliant, original, painstaking work. It fills a long-felt want and leaves nothing to be desired."

¶ The Roentgen Conclusions, Operative Findings and Illustrations are so arranged that they demonstrate clearly, simply and concisely the normal and pathological conditions with which they deal. *No other similar work possesses this important arrangement.*

¶ The Gall-Stone section is especially noteworthy. The Authors not only give their definite technique, but exemplify and prove its correctness by thirty-eight remarkable gall-stone reproductions.

¶ The Surgeon and Clinician especially, will appreciate the fact that the operative findings are given on over 95% of the three hundred and odd cases illustrated... by comparing or

"matching up" his own Roentgenologist's radiographic report with a similar reproduction in the book, he will know in advance, in the majority of instances, the conditions which he will encounter in the actual operation.

¶ The prominence, standing, past writings and wide experience in Roentgenology of the Authors, warrant the statement, that this, their most complete work, is authoritative.

¶ The illustrations are exact (not reversed) reproductions of the original Roentgen plates. They are unexcelled, if not unequalled, in beauty and clearness of detail.

¶ **THREE HUNDRED AND SIX PAGES** including Seven Three-color Illustrations, Eighteen Artist's Drawings, Three Hundred and Forty-Three Roentgen Plate Reproductions.

¶ **INDEX** contains Two Hundred and Ten Separate Headings.

¶ The Book: The paper used is made to order for the work in hand. The binding is in Art Vellum De Luxe—full silk black cloth with outside stampings in gold. Size of book page is nine and one-quarter by twelve and one-half inches.

McIntosh Battery & Optical Co.

217-223 N. Desplaines Street

CHICAGO, ILL.

NOTE: The reduced pages below show the method of arrangement of Legends and how faithfully the Roentgen Plates are reproduced in their original shadow gradations. Those illustrations, in the book, are 5 x 4 and 3 1/2 x 4 inches. The page size of the book is 9 1/2 x 12 1/2 inches.

THE ROENTGEN DIAGNOSIS OF SURGICAL LESIONS

LARGE INTESTINE

ADHESIONS

Figure 296

PATIENT POSITION: Man, age 50. Prone.
(Twenty-four hour plate)

ROENTGEN CONCLUSIONS: Normal.

OPERATIVE FINDINGS: No operation.

Key plate.

1. Cecum.
2. Ascending colon.
3. Hepatic flexure.
4. Transverse colon.
5. Splenic flexure.
6. Descending colon.
7. Sigmoid.
8. Appendix.

Figure 297

PATIENT—POSITION: Woman, age 38. Prone.

ROENTGEN CONCLUSIONS: Incompetency of the ileocecal valve due to adhesions about the ascending colon. These adhesions extend from the region of the cecum to the lesser curvature of the stomach, causing pressure on the duodenum and transverse colon.

OPERATIVE FINDINGS: Exploration showed presence of a dilated duodenum due to adhesions which caused a narrowing of lumen. Appendix drawn up, although not grossly pathological, tied off and removed. Many adhesions separated in the right upper quadrant.

Bismuth enema examination and bismuth meal.

A—B—C—D—E. Effect of pressure from adhesions.

F. Appendix and ileum.

G. Bismuth in ileum due to incompetency of the ileocecal valve.

H. Marked atony of the transverse colon.

THE ROENTGEN DIAGNOSIS OF SURGICAL LESIONS

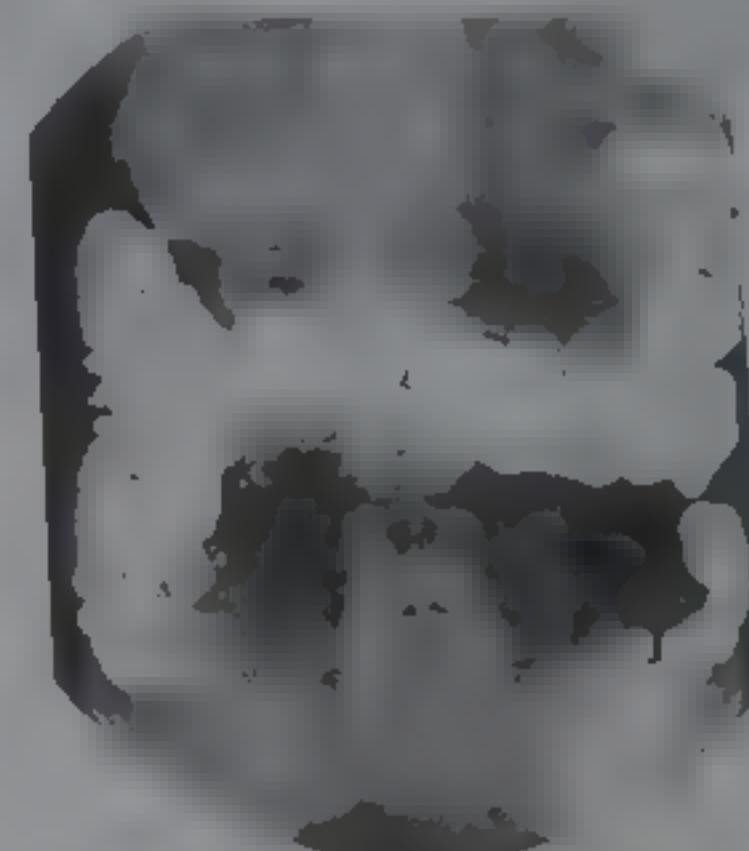


FIGURE 296



FIGURE 297

"A necessity for the Roentgenologists and a guide and fund of information, for every Physician, Surgeon and Radiologist, is the presence of the X-Ray as a Diagnostic Agent. . . . It will enable the Physician and Surgeon to appreciate understandingly and fully the Roentgenologist's report."

"Not only do the Authors give their full technique of Plate Making and Plate Interpretation, which is of prime importance, but the Surgeon will also appreciate the invaluable assistance of having both the Roentgen Conclusions and Operative Findings given on the same plate in the cases."

TABLE OF CONTENTS

SECTION I. NORMAL STOMACH

Methods — Direct and Indirect Method — Apparatus
Meals — Position of Patient — Number of Plates
Time of Examinations.

SECTION II. GASTRIC ULCER.

Definition — Technique — Normal Gastric Shadow —
Variations from the Normal — Positive Signs of Ulcer
— Presumptive Signs of Ulcer.

SECTION III. GASTRIC NEW GROWTH.

Classification — Value of the Roentgen Ray in Diag-
nosis and Prognosis — Early Carcinoma — Advanced
Carcinoma with Symptoms — and Without Symptoms
— Value of the Negative Plate.

SECTION IV. DUODENUM.

Definition — Pathology — Possibility of a Positive
Diagnosis — "Seven Propositions" — Serial Plates —
Presumptive Evidence — Value of Fluoroscope.

SECTION V. GALL-BLADDER.

Percentage of Stones which Show — Technique —
Preparation and Position of Patient — Tubes — Plates
— Screens — Stereoscopic Plates — Demonstration of
Diseased Gall-Bladder — Adhesions.

SECTION VI. SMALL INTESTINE.

Roentgen Appearance — Jejunum — Ileum — Ulcer
— Difficulties of Demonstration — New Growth —
Adhesions.

SECTION VII. APPENDIX.

American and Continental School — Technique —
Meal — Plates — Fluoroscope — Normal Appearance
— Roentgen Evidence of Pathology.

SECTION VIII. LARGE INTESTINE.

Opaque Meal — Enema — Use of Fluoroscope —
Plates — Normal Colon — Adhesions — Roentgen
Evidence of New Growth — Congenital or Acquired
Malformations — Colitis.

SECTION IX. DIVERTICULITIS.

ORDER BLANK

Dear Sirs:

*Referring to THE ROENTGEN DIAGNOSIS OF
SURGICAL LESIONS OF THE GASTRO-INTESTINAL
TRACT (George and Leonard), I desire you to (check one).*

- 1.....Send me the Book, postpaid, (C O.D \$10.00).*
- 2.....Send me the Book, postpaid, (enclosed find check for \$10.00).*
- 3.....Send me the Book, postpaid, (charge to my account with you).*

Signed

Date

Medical
Equipments
Wall Cabinets
AND
ELECTROTHERAPEUTICAL
APPLIANCES

MADE IN U.S.A.
REGISTERED

McIntosh Battery & Optical Co.

ESTABLISHED 1879.

OFF. OF 121-229 WASHINGTON ST.

Chicago

Sept. 6, 1904.

J. H. Knowlton, M. D.,

Manitua, O.

Dear Doctor:-

If you want to take advantage of a "sure thing," then you ought to send us your acceptance of the proposition made you a short time ago.

The "McIntosh" quality is a "sure thing," if anything ever merited this expression, as it can be depended upon absolutely.

There is a great satisfaction in knowing that your office is equipped with the best to be had and this feeling is peculiar to "McIntosh" customers.

Our goods are designed right, built right and priced right; little wonder that the purchaser is satisfied.

We are ready and anxious to give you our very best service in supplying your needs in our line, and we know that if you will give us an opportunity we shall "make good."

Very truly yours,

McINTOSH BATTERY & OPTICAL CO.

Geo. B. McIntosh
Vice Pres.

C. ALFRED SMITH
PRES. AND MANAGER

MANUFACTURERS
OF

Medical
Batteries
Wall Cabinets
AND
ELECTRO-THERAPEUTICAL
APPLIANCES.
McINTOSH IMPROVED
METERS.

McIntosh Battery & Optical Co.

ESTABLISHED 1870.

OFFICE 227-229 WASHINGTON ST.

Chicago

Sept. 8, 1901.

E. H. Knowlton, M. D.,

Mantua, O.

Dear Doctor:-

If you want to take advantage of a "sure thing," then you ought to send us your acceptance of the quotation made you a short time ago.

The "McIntosh" quality is a "sure thing," if any thing ever merited this expression, as it can be depended upon absolutely. Satisfaction in knowing that your order is

... and we think that
... is good."

... yours,

McINTOSH BATTERY & OPTICAL CO.

Geo. B. Hogan
Vice Pres.

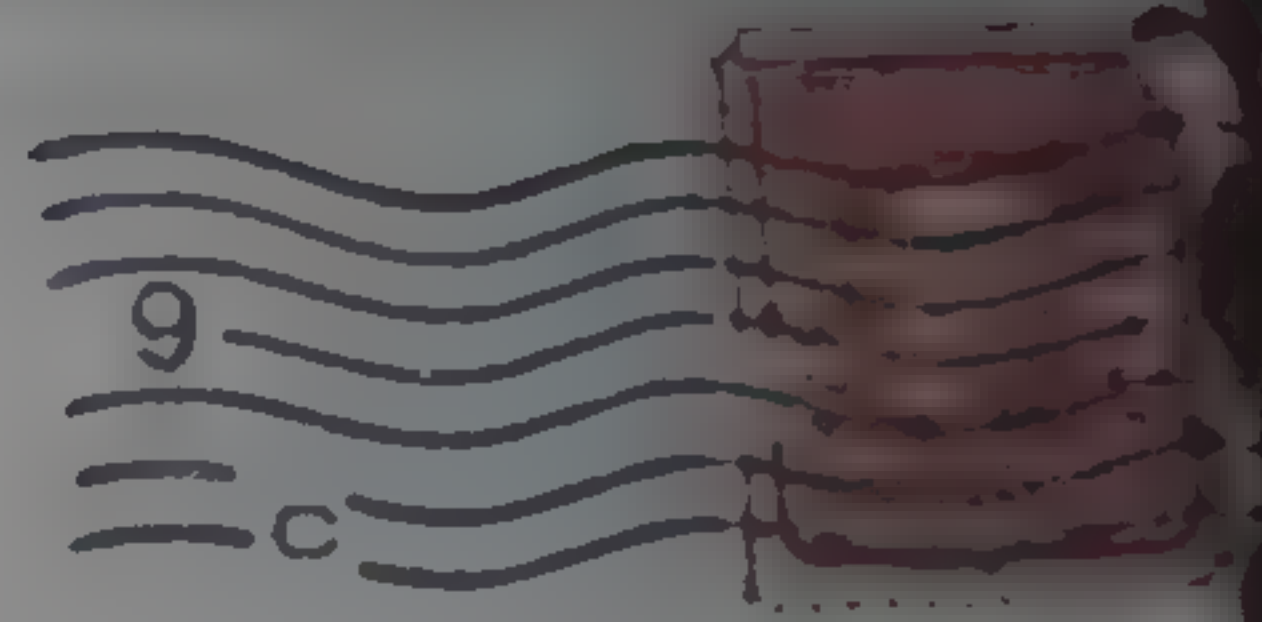
RETURN IN FIVE DAYS TO



Battery and Optical Co.

227-229 WASHINGTON STREET

CHICAGO, ILL.



W. T. Nicholson, T. T.,

1908,

McINTOSH BATTERY & OPTICAL CO.

227-229 Washington Street

CHICAGO, ILL.

Terms

References

Make Sight Draft through

Bank

I enclose herewith \$

I have in my office the {

Direct Current

Volts.

Alternating Current

Volts

Cycles

Name

P. O.

County

State

Shipping Point (if other than P. O.)

Remarks

INQUIRY BLANK.

McINTOSH BATTERY AND OPTICAL CO., Chicago, Ill.

Gentlemen:

I am interested in the following articles:

[illegible]

have in my office the

Direct Current.....volts.

Alternating Current.....volts.

have in my office the Direct Current volts.
 Alternating Current volts.

I would like to make the purchase on the following terms:

If sight draft accompanies bill of lading, I would prefer the following bank:

If goods are sold to me on open account, I can give you the following references:

Kindly make me your best proposition on above list of goods on the basis of the terms stated.

It is agreed and understood that the above memoranda is not to be construed as an order authorizing shipment, but merely as an inquiry soliciting further information.

Name

P. O.

County

State

Railroad

Shipping point (if other than P. O.)

Date

THE ELECTRO-THERAPEUTIC GUIDE

—OR—

A THOUSAND QUESTIONS ASKED AND ANSWERED

—BY—

HOMER CLARK BENNETT

M.D., M.E., PH.G., D.P., M.Ph.-Th.

Author and editor of a mail course of thirty lessons in electro-therapeutics. Editor "The Electro-Therapist." Secretary and teacher in the National College of Electro-Therapeutics. Member, etc., etc.

EIGHTH EDITION, NOVEMBER, 1907

REVISED AND CONDENSED

FOR SALE BY

McINTOSH BATTERY AND OPTICAL CO.

227 Washington St., Chicago.

PRICE \$2.00 NET

HAVE YOU A COPY?

THIS BOOK IS A REAL GUY'S

11. SERVICES PROVIDED FOR YOU

LETTERS FOR SALE

PLEASE DO NOT WRITE IN THESE SPACES

1901 (1901) 111, 112, 113

THE HISTORY OF THE

THERE IS NOTHING LIKE IT

IT IS THOROUGHLY PROVED

IT WAS THE NO NO NO

THE BOOK is a corollary to, and sequel of, the main course of thirty lessons in electrotherapeutics illustrated. It is full of merit, with the dulls and shells removed. There is no chaff to sift. The flowers of electrotherapy are here threshed out. It is the honey of condensed facts, culled from all the flowers of electrotherapy found growing in the gardens and fields of experience, compressed by the hard practical test of years into one volume, the size of both your pocket and pocket-book. It is written by one of the pioneers of the science, and is a most useful work for the beginner and novice needs, and has supplied the want of a book of this kind for many years.

THE NEW ORDER

STONKS BACK IF NOT SATISFIED

10

Electro-Therapeutic Guide

ORDER BLANK

.....190.....

McIntosh Battery and Optical Co.

227 Washington St., Chicago

*Enclosed find \$2.00 for which please forward
me one copy of Bennett's "Electro-Therapeutic
Guide," carriage prepaid.*

Name

Post Office

County

State

**Remittances should be made by Express
Money Order, P. O. Money Order, Registered
Letter or Draft on Chicago.**

McIntosh Table Cabinet

STYLE E

FITTED WITH NO. 6 PLATE

An Elegant, Up-to-Date Office Outfit



ARRANGED WITH ALTERNATING CURRENT RECTIFIER

Price, complete, as illustrated
\$75.00

Manufactured by

McIntosh Battery and Optical Company

227-229 Washington St., Chicago, Ill.

McIntosh Table Cabinet

STYLE E

FITTED WITH NO. 6 PLATE

This apparatus, shown in illustration on the front cover, is a new departure in electro-therapeutical apparatus. It combines the compactness of arrangement of a Wall Plate with the convenience and easy mobility of a Table Plate. It makes a most suitable outfit for use in the hospital, as it may be easily rolled from one ward to another.

The No. 6 Plate, mounted in Table Cabinet, is our regular style of Plate as usually furnished in Wall Cabinet and offers all of the advantages of such an outfit. It consists of a handsome marble slab, 16 inches square, upon which are mounted: the superior MacLagan Wire Rheostat; the accurate McIntosh Milliamperemeter with Shunt; the reliable McIntosh Graduated Automatic Rheotome; a large Faradic Coil containing Primary and Secondary Windings, with Fast and Slow Vibrators; together with Pole-changer and other necessary switches and binding-posts for regulation and delivery of the various currents.

The Alternating Current can be made use of as a source of energy through the agency of the McIntosh Alternating Current Rectifier, which can be accommodated on the shelf beneath the table, where the controlling switch can be easily manipulated by the operator and the burning of the resistance lamp can be observed. When the outfit is furnished especially adapted to the alternating current, it is so wired that a *Sinusoidal Current* can be obtained from the apparatus in addition to the Galvanic and Faradic Currents usually available.

The Direct Lighting Current may be very easily employed as a source of supply for the apparatus. With this form of current it is only necessary to screw the attaching plug into a convenient lamp socket and make connection with the binding-posts on the Cabinet. When operated in this manner the Galvanic and Faradic Currents in almost numberless varieties can be obtained from the apparatus.

The Cabinet-Work is in the form of a handsome library table and is built of selected, kiln-dried, quarter-sawed oak, hand-rubbed to a brilliant polish in the popular, dark, golden finish. The extreme width of the table from right to left is 32 inches; the depth from front to back is 26 inches and the height over all is 36 inches. The table is fitted with a set of durable, substantial castors. The protecting case is strongly hinged and secured by a brass stay joint, and, being fitted with bevelled plate glass, it makes a secure, dust-proof cover for the Table Plate when closed down and locked. The ample space on the table top makes a convenient resting place for electrodes during operation and the two drawers afford good storage space for such appliances. A pair of Conducting Cords, Universal Handles and Sponge Discs as well as Attaching Plug and Cord are included with each outfit.

PRICES.

McIntosh Table Cabinet, Style E, fitted with No. 6 Plate, *wired for Alternating Current*, including McIntosh Alternating Current Rectifier.....\$75.00

McIntosh Table Cabinet, Style E, fitted with No. 6 Plate, *wired for 110 volt Direct Current*.....\$60.00

McIntosh Table Cabinet

STYLE E

FITTED WITH NO. 9 PLATE

This unique, up-to-date outfit, illustrated on the fourth page, offers all the advantageous features of the No. 8 Table Plate but with the additional points of superiority possessed by the No. 9 Plate.

The McIntosh No. 9 Plate consists of an elegant, highly polished marble slab, 18 inches by 24 inches, upon which are mounted: the MacLagan Wire Rheostat; the McIntosh Milliamperemeter with Shunt; the new McIntosh Monomotive Rheotome; a High Tension Faradic Coil, containing Primary Winding and Secondary Winding consisting of 4500 feet of No. 36 wire, tapped at 1500 and 3000 feet; as well as the McIntosh Energy Changing Switch, a Switch for the Connection of a Set of 12 Dry Cells for Caution Work, together with the McIntosh Current Combiner Switch, Pole Changer and other necessary switches and binding-posts for administration of the various currents.

The Points of Advantage in which the No. 9 Plate exceeds the No. 8 Plate are as follows:

1. The High Tension Faradic Coil, from which a Secondary Current of valuable anaesthetic properties is available; this current being highly recommended by many of the leading writers on Electro-Therapeutics.
2. The McIntosh Monomotive Rheotome, a superior type of automatic interrupter for either Galvanic, Faradic or Sinusoidal current; its especial virtue consisting in the high degree to which the mechanical detail has been perfected.
3. The McIntosh Current Combiner Switch permits of the combining of the Galvanic and Faradic or the Primary and Secondary currents; this is also a feature dwelt upon at great length by the master-minds in Electro-Therapy.
4. The McIntosh Energy Changing Switch, by means of which two different forms of energy may be utilized in an intermittent manner; for example: using direct power circuit during the day or alternating lighting current during the evening.
5. A Switch for Connection of a Set of 12 Dry Cells for Caution Work, offering a wide range of caution effects.

The General Finish of this outfit is the same as that of the outfit with No. 8 Plate; the cabinet work being of the same character; the only difference being that exhibited in the plate. A pair of Conducting Cords and Universal Handles with Sponge Discs, together with Attaching Plug and cord, as well as three Dry Cells for the Faradic Coil, are included with the apparatus.

PRICES.

McIntosh Table Cabinet, Style E, fitted with No. 9 Plate, wired for Alternating Current, including McIntosh Alternating Current Rectifier.....	\$100.00
McIntosh Table Cabinet, Style E, fitted with No. 9 Plate, wired for 110 volt Direct Current.....	\$ 85.00

McIntosh Table Cabinet

STYLE E

FITTED WITH NO. 9 PLATE

An Exceptionally Complete Office Equipment



ARRANGED WITH ALTERNATING CURRENT RECTIFIER

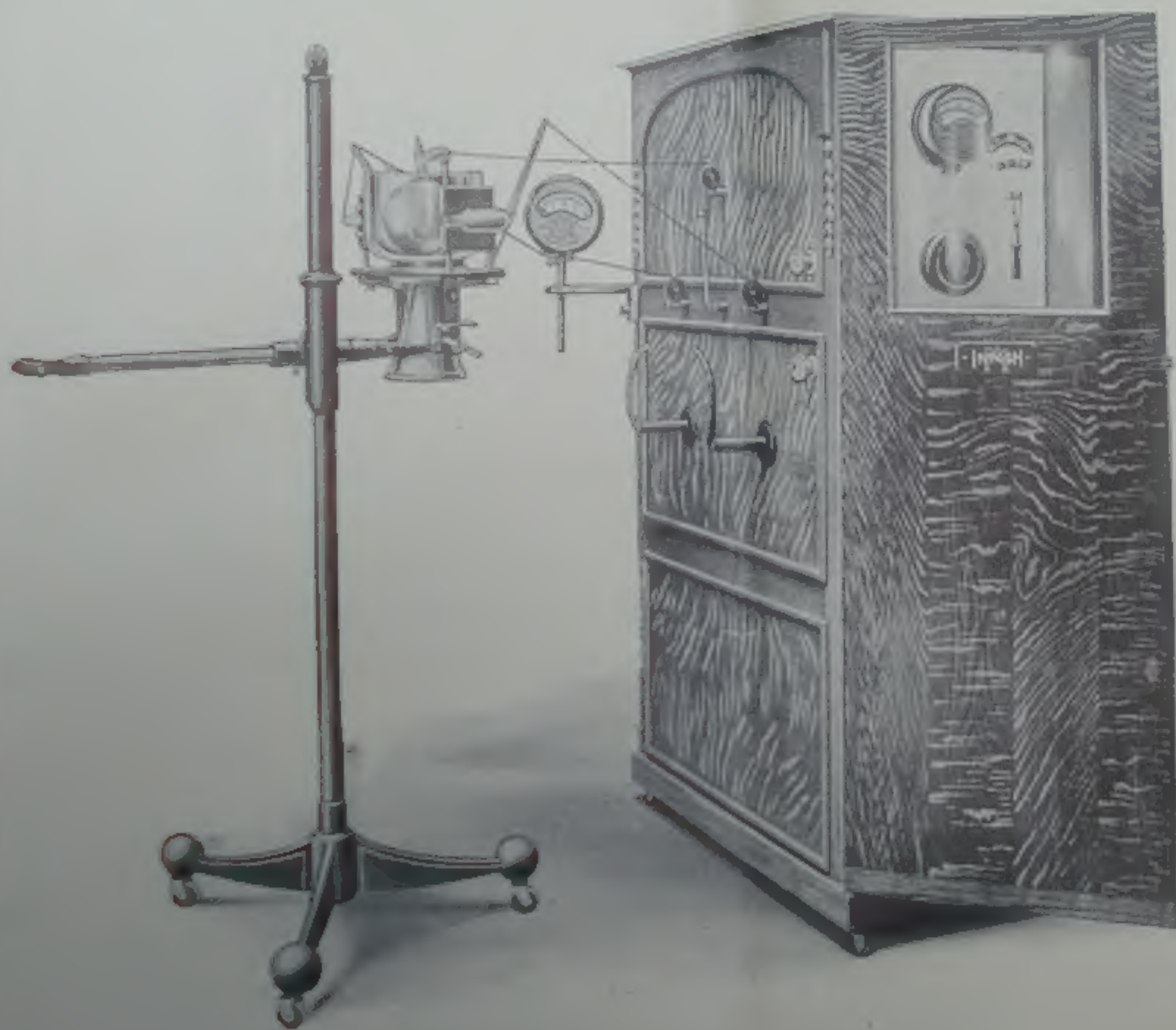
Price, complete, as illustrated
\$100.00

Manufactured by

McIntosh Battery and Optical Company
227-229 Washington St., Chicago, Ill.

The Hogan Silent X-Ray Transformer

(PATENTS PENDING)



Interrupterless, Motorless, Commutatorless
and Noiseless on Alternating Current

Manufactured by

McIntosh Battery & Optical Company

322 W. Washington Street, CHICAGO, ILLINOIS